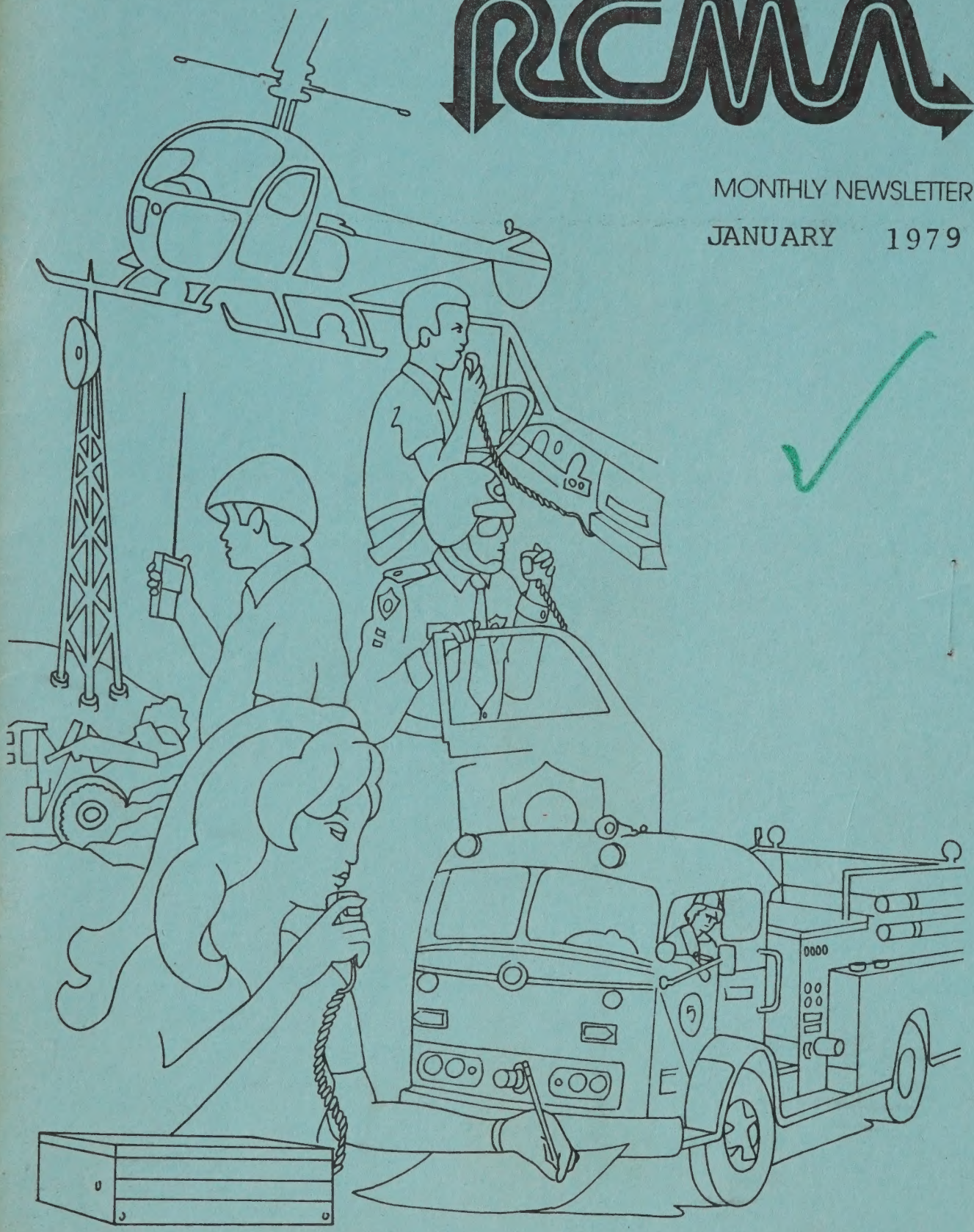
RCMA

MONTHLY NEWSLETTER

JANUARY 1979



RCMA OFFICIALS

BOARD OF DIRECTORS

RCMA PRESIDENT

DAVID A. HEYWOOD (CA-LA-001)

VICE PRESIDENT

DANIEL MC LEAN (CA-OR-004)
714-995-6336

SECRETARY

GEORGE KASHNER (CA-OR-041)
714 - 540-9061

TREASURER

KARL PAGEL (CA-OR-022)
714-772-5451

MEMBER-AT-LARGE

JERRY SHORT (CA-OR-002)
714-772-1259

STAFF MEMBERS

MEMBERSHIP OFFICER

GEORGE POND (CA-SB-008)
714-665-9447

SERGEANT-AT-ARMS

PHIL BETTENCOURT (CA-OR-009)
714-554-0922

ANARC REPRESENTATIVES

IDEN ROGERS (CA-R-001)
714-688-1168

JERRY SHORT (CA-OR-002)
714-772-1259

DON JONES (CA-OR-014)
714-524-5730

NEWSLETTER STAFF

CHIEF EDITOR

DON JONES (CA-OR-014)
714-524-5730

NEWS EDITOR

TECHNICAL EDITOR

CHUCK SMITH (CA-OR-001)
714-840-4397

PUBLISHER

JERRY SHORT (CA-OR-002)
714-772-1259

The RCMA Newsletter is published monthly by the members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Post Office Box 4563, Anaheim, California 92803. Subscription rate/membership fee is $6.00 per year for US and Canadian residents; $14.00 for overseas residents. Information contained herein is primarily obtained from members and does not necessarily present the position or reflect the opinion of the RCMA as a whole. Reproduction of any material in this Newsletter is authorized providing the source is given credit (this excludes direct photocopying). THE BAY AREA SCANNERS CLUB is specifically welcome to use material from the RCMA Newsletter. JAN. 1979 ISSUE 1 VOLUME V COPY NO. XXXVII

TABLE OF CONTENTS

PRESIDENT'S MESSAGE	1	INFORMATION EXCHANGE	9
CALENDAR	1	FREQUENCY LISTS	10-11
EDITORIAL	2	WANT ADS	12
HAM SCANNING	3	12-CODE	13
DIGITAL FLIGHT SCAN	4-5	TECHNICAL NEWS	14-17
CORRESPONDENCE	6-8	MONITORING & THE LAW	18-19
CLUB NEWS	8	MEMBERSHIP	20

* * * * * * * * *

MESSAGE FROM THE PRESIDENT

January is nominations time. A Nomination Committee will be formed this month to present a slate of candidates for the 1979 RCMA Board of Directors. We also encourage anyone else who is interested in running for a position to express this interest at our next meeting.

A list of candidates will be printed on a ballot form in the February Newsletter. On Monday, March 19th, the Monday after the March RCMA meeting, all ballots will be counted. This means that all out-of-state members should not delay in returning their ballots. The April meeting will be the first meeting for the new Board.

Each year during January, the Consumer Electronics Show is conducted in Las Vegas. These shows are usually fairly interesting as most new radios will be shown for the first time. Since these shows are not open to the general public, a full report will be presented at the January club meeting.

Last month's meeting was again devoted to aviation radios. We started out with a very informative discussion from one of our own members WAYNE (OK-001), employed by the F.A.A. Then we got to see a Regency Digital Flight Scan Radio. Jerry (CA-OR-002) and IDEN (CA-RI-001) gave a very interesting presentation of this new radio, which was provided courtesy of BOB (CA-OR-033). Then, after a fairly long break, Captain James Matheson, our guest speaker, spoke on today's present aviation radio techniques. Jim was late as a result of a delayed flight.

Thanks again to everyone involved with last month's meeting.

DAVE (CA-LA-001)

* * * * * * * * *

C A L E N D A R

MONTH DATE	DAY TIME	TYPE MTG. SCHEDULED	ORGANIZATION LOCATION
JAN. 17	WED. 7:30 PM	MONTHLY 3rd WED.	BAY AREA SCANNERS CLUB BERESFORD RECREATIONAL CENTER 27th/ALAMEDA DE LAS PULGAS, SAN MATEO, CA.
JAN. 19	FRI. 8:00 PM	MONTHLY 3rd FRI.	RADIO COMMUNICATIONS MONITORING ASSN. MERCURY SAVINGS & LOAN VALLEY VIEW ST/LINCOLN AVE.,BUENA PARK, CA
FEB. 2	FRI. 7:30 PM	MONTHLY 1st FRI.	RADIO COMMUNICATIONS MONITORING ASSN. SAN DIEGO CHAPTER, SKIP SANDERS' HOME 2129 CROWNHILL RD., SAN DIEGO, CA

January's RCMA Club meeting will feature guest speaker David Faraone, WA6KOS, President of the Mount Wilson Repeater Association.

EDITORIAL COMMENTS

CHRISTMAS 1978 is now a thing of the past and 1979 is upon us--doesn't seem possible that we've marked off another year already. I send each member my best wishes for a Happy 1979, full of radio monitoring pleasures.

The beginning of a new year also reminds us that it will soon be election time for RCMA. As you probably noted in last month's "Message from the President", DAVE (CA-LA-001) will not be running for office in 1979. DAVE was one of the founding members of RCMA and certainly is to be commended for serving as President for the past two years, laying the groundwork for an organization which has mushroomed from a few local monitors to a national club of over 500 members. We should all be considering possible candidates for the Board of Directors (hmmm...maybe if I could get elected to an office, I could turn over this Editor post to someone else .....wishful thinking!!).

I can't believe the tremendous response we've had to the new "FREQUENCY LIST" form which was inserted in the past two Newsletters. The volume of frequency lists submitted has been so great that we cannot possibly publish them all each month. Therefore, we will have to be selective and try to print those frequencies which are of general interest--in other words, we may not print every frequency you submit, but will possibly hold some back for future editions. Keep up the good work and be assured that none of your submittals will be discarded. We are thinking about the possibility of grouping the frequencies submitted into FACT SHEETS by regional areas; however, this will only be accomplished as time and manpower permits. REMEMBER -- if you need additional Frequency List forms, send a SASE to the RCMA Post Office Box -- for each stamp you will receive 6 forms).

Several members have written in, indicating their willingness to be regular or semi-regular contributors or reporters for the Newsletter. I sincerely appreciate these offers, but have not formally responded as of this date, primarily because I'm still trying to pull this entire "Editing" act together. As I indicated a couple of months ago, this post is an entire new venture for me and I'm a little hesitant to pull in too many people until I feel more grounded. Due to the "amateur" nature of this publication, logistics are very important and I visualize coordination difficulties if we have regular reporters from all over the U.S. However, I haven't discarded the idea and definitely intend to come up with some method whereby we all can gain from the talents of those members who are willing to contribute. For those of you who have written, please be patient -- I will communicate with you regarding a possible assignment, suggested reporting topics, etc.

On the other hand, if you are a local (Southern California) member who wishes to become involved with the Newsletter, do let me know. We could use some additional manpower in typing, layout, assembly, folding, stapling, etc. -- it's quite a load for the few of us who actively participate.

We still have a backlog of letters, news clippings, etc. that have been submitted by members for the Newsletter. As indicated in a past Editorial, you can rest assured that as long as I am Editor, none of your submittals will be placed in the "Round File". They will either be responded to directly, included verbatim, edited, or somehow acknowledged in future Newsletters as time and space is available, and as they fit in with subjects under discussion.

While on the subject of Newsletter content, I would like to make a plea for the submittal of more Technical Articles, i.e. construction projects you have made, unique uses of equipment, suggestions for equipment improvement, etc. As you've noticed, we've had a deluge of Equipment Reviews on BC 210's and BC 250's and probably will hold off on any more of these reviews until new equipment comes on the market.

Well, that about wraps up my comments for this issue. Again, I wish you all the very best for 1979 ! DON

FM HAM SCANNING

This article is written to answer some inquiries I have noticed in previous Newsletters about ham usage.

The two-meter ham band covers 144-148 MHz. The 3/4 Meter band covers 420-450 MHz and is more commonly referred to as "450 MHz". Many scanners will monitor all or a portion of these frequency ranges.

These ham bands are used mostly with repeaters in strategic locations such as mountain tops or atop high man-made structures, greatly extending coverage area. However, there are simplex (non-repeater) frequencies for local communication. 146.52 MHz and 446.00 MHz are National Simplex Frequencies, but others are used.

The repeaters have an input and output frequency. On two-meters, the frequencies are usually offset by + or - 600 KHz (example 146.28 and 146.88 referred to as 28/88). 450 MHz offsets are + or - 5.MHz. The repeater merely takes the input frequency audio and simultanteously re-broadcasts it on the output frequency. Scanner listeners need only monitor the output frequency, but may wish to experiment with both frequencies.

The ham radio (rigs) are normally low power, averaging 10 watts output, but as little as 500 milliwatts (1000 watts may be legally used). Switches are provided for simplex, + or - 600 KHz or + or - 5 MHz offsets. Rigs are crystal (rockbound) or synthesized controlled.

Two-meter usage is older and more widely used than 450 MHz, but 450 MHz repeaters are increasing monthly. Repeaters are normally group or club-owned, but some hams do own their own repeaters. Two (or more) repeaters may also be linked to extend the area of coverage.

If you hear various tones, this is either Tone Access to actuate a "closed repeater" which may be used only by certain hams, or Autopatch, the interconnection of ham radio and regular telephone lines.

450 MHz repeater outputs range from 442.00 - 444.95 every 50 KHz (example 442.00, 442.050, 442.100....). Two meter repeater outputs range from 146.61 - 147.39 every 30 KHz (example, 146.61, 146.64, 146.67 ....).

Many monitors don't know that their scanner will scan ham frequencies. So, if you hadn't realized it or gone to the trouble of listening, you might enjoy another interesting aspect of monitoring.

Also, quite a few hams own scanners just for exclusive ham use. Others are avid monitors. The November Newsletter indicates that 46 of the 512 RCMA members, or aroung 9%, are hams. Surprised???

MICHAEL (VA-002)

The following was heard via the grapevine, and might be titled "A STEP BACKWARD FOR A MODERN POLICE AGENCY":

> On the first of December, a memo was sent to all patrol personnel in the Orange County Sheriff Department titled "Unauthorized Communications Equipment". The memo put a ban on the use of scanners, CB radio and AM/FM Broadcast radios in the patrol cars. The only authorized equipment now is that equipment issued by the Department or supplied with the patrol cars.

Doesn't this seem like a policy opposite the trend of other Police Departments??? Well . . . that's politics, folks!!

REGENCY DIGITAL FLIGHT SCAN

Regency's Digital Flight Scan is the first synthesized aircraft scanner to appear on the market. I've had one for about two weeks and would hate to part with it, but it has its problems. (Antenna used is a quarter wave ground plane at 35 feet.)

1. It only receives one band, 108-136 MHz, and the full retail price seems a little high for a single-band monitor. If it included the 225-400 MHz UHF aircraft band, it would certainly be worth the price even with its faults, or if it had significantly fewer spurious responses, it would be worth the price.

2. The No. 1 most significant problem is poor image rejection. The first intermediate frequency is 10.7 MHz; therefore, images of stations transmitting 21.4 MHz (2x10.7) away from any given receive frequency will frequently be received. The worst case is the two-meter amateur band (144-148 MHz), the most active portion of which is 146-148 MHz. This portion of the two-meter band will appear in the 124.6 to 126.2 MHz range on the receiver (146-21.4 = 124.6, 148.21.4 = 126.6), right on top of active aircraft channels. The oscillator appears to inject on the high side of the incoming signal on one half of the band and inject on the low side on the other half of the band. This was done, no doubt, to reduce images which it probably did, but the result is that some aircraft signals that occur in the upper half of the band will be received in the lower half of the band (21.4 MHz lower than their actual frequency) and some navigational stations on the lower half of the band will be received on the upper half of the band (21.4 MHz higher than their actual frequency).

   (The Regency Crystal Flight Scan, the Digital Flight Scan's predecessor, has the same problems but its intermediate frequency is 10.5 MHz so the images are shifted slightly. I called Regency some time ago about my Crystal Flight Scan image problems and it was suggested to me that I disconnect my outside antenna, which was another way of saying "we realized that this receiver has design problems and this remedy is purely symptomatic and does not deal with the real problem." An extension of their suggestion would be to unplug the receiver in order to completely eliminate image responses. Further, I was treated rather abruptly and rudely by the man with whom I was speaking. It appears from others' comments that Regency is not scoring too well in the diplomacy and customer relations area.)

3. The Digital Flight Scan picks up a few TV signals, FM broadcast signals and high band signals. Whether images or not, I'm not sure, but at any rate they are lurking in there. They are usually less strong than the two-meter images, but will stop the scan and search here and there depending on the part of the band. Tightening up the squelch a little reduces some of it without effectively reducing receiver sensitivity objectionably. Some channels are rendered useless, however.

4. Two station intermod mixes show up here and there, but are not nearly as serious as they are on some scanners.

5. I live about 3/4 of a mile from an airport. Signals from aircraft going overhead pop up in various undesired places on the radio, but not quite as badly as they do on the Crystal Flight Scan! In all fairness, one cannot truly expect interference-free reception in the presence of such strong signals.

6. Internal receiver birdies are surprisingly rare--a pleasant surprise, indeed.

7. The audio quality is very good.

8. The adjacent channel selectivity is good.

9. The search feature works very well (except for the undesired garbage that is received). It automatically stops on active frequencies and stays there until manually released. It then resumes searching where it left off.

10. Squelch operation is not nearly as good as the Crystal Flight Scan, which can be adjusted to various degrees from full squelch to no squelch. The Digital Flight Scan's squelch, when slowly advanced from the unsquelched condition toward the squelched condition, will abruptly become squelched. There is no "in-between". On weak signals, it sometimes "thumps" while going back and forth from the squelched to unsquelched condition. Thd squelch could use improvement.

11. Programming: I find the button layout and programming scheme to be very good--a pleasure to use. I don't care for the plastic over the buttons. I like real buttons better, but that's another thing. Aircraft listening is different from public service band listening in that most, but not all, listening at any one time is on one and sometimes two channels with the others locked out (necessary in a metropolitan area) and the listener, to follow an aircraft, must be right there to change frequencies along with the pilot. If a Los Angeles Center radar controller, for example, says, "United two thirty-one contact Ontario approach on one one nine point six five", the listener, if he has it programmed in, simply presses the "button"for the proper channel (one "button" each for the 16 channels) and there it is with the first frequency now inactive. The time required is less than two seconds and requires pressing only one "button"! If the controller calls out a frequency that has not been programmed in, there is no problem. Using the same frequency as an example, one would press one, one, nine, point, six, five, enter, channel number. The channel number does not have to be selected in advance and can be any one of the sixteen. The operation is hassle-free, mentally and physically, and typically takes four seconds. Speed and ease of programming are essential since pilots usually waste no time changing frequencies. I can't think of a single improvement for programming this receiver. In my opinion, the programming aspects of the receiver are terrific!

    Another nice feature about the receiver is that during programming, no decimal point is required. This saves time and makes programming simpler. If a controller says to a pilot, "Contact Ontario Tower now on one two zero point six," and if that frequency is not programmed in, one can simply press "1", "2", "0" "6", which gives an LED readout of "1206". When the "Enter" button is pressed, it changes to "120.600". If "1", "3, "Enter" is punched in, for example, it will read "130.000". The receiver adds the decimal and all necessary zeros to the right of the last digit.

The first part of this review may make readers belive that the receiver is plagued band edge to band edge by garbage responses that render the receiver useless. This is not true. It could use improvement, to be sure, but in the 118-136 MHz range about 7% of the channels have problems and the others work almost flawlessly. It should be noted that I live within one of the largest metropolitan areas in the world and there are signals everywhere. If you live in a smaller city away from the large metropolitan areas, the interference on this receiver would be proportionally less and possibly reduced to an insignificant level.

If you are serious about aircraft scanning, buy one!

IDEN (CA-RI-001)

CORRESPONDENCE

Thought you might be interested in a new movie being released in May 1979. It's called "A Man, A Woman, A Bank". It's about a computerized bank robbery, with the "bad guys" using at least one BC 210 to monitor police, etc. Sounds like a definite slap in the face (Maybe it was financed by Motorola???---just kidding).

FRED (CA-KE-002)

* * * * * * * * * * *

I'm dropping a line to tell you how important monitoring can be to a community. On November 26, 1978, I was driving over to the Orange Shopping Mall when I heard a "red" broadcast about two female escapees While driving north on State College, I saw the two female escapees trying to thumb a ride,so I immediately pulled over to a pay phone and called the Orange Police Department. I told them I heard the broadcast about two female escapees and gave them the location of the two, which led to their re-capture.

JAMES (CA-OR-080)

* * * * * * * * * * * *

My primary purpose in writing is to request that the frequency information and other articles in the Newsletter be expanded to cover all frequency ranges except for broadcast band and television. I have been a SWL, DXers, and Monitor buff for well in excess of a dozen years. I have had monitor equipment which covered the frequency spectrum from 10 KHz up to 600 MHz. I have had AM, FM, FAX, and several other modes. I find that there is a strong interrelationship between frequencies below 30 MHz to those above. Persons who listen to Military Communications above 30 MHz are only scratching the surface.

I think that if information about frequencies below 30 MHz were included in the bulletin, many people who only have monitors might decide to purchase equipment for below 30 MHz. I have equipment for both. I have had BC-101's, BC-101A's, BC210's, SPR-4's, RF-2800, ICF-5900W, SX-130's and more receivers. I find that when VHF-UHF is not interesting, shortwave is. However, I may be a little different than most of your members. I enjoy finding frequencies and stations, not just listening to them. I find the "hunt" is the fun part of the hobby. I know that I am not alone in this pursuit. Bob Grove, Jim Barrow, John Coker and others share my view.

Perhaps under 30 MHz could be tried experimentally for a year or so. The type of stations you find there are not available on UHF-VHF. For example, last night I listened to the U.S. Antarctic Support Facilities at the South Pole, talking with the Antarctic Bases at McMurdo and Siple Station. I also heard aircraft in contact with air traffic controllers in 15 countries. I heard the Coast Guard in Kodiak Alaska, talking to Cutters. I heard the Strategic Air Command in contact with their aircraft. Most of this type of communications just is not available in VHF-UHF because of the distance involved.

If anyone would like to talk to me about HF, I am available at (312) 433-2802 - daytime, and (312) 498-1403 - nites. (Do not call collect).

STEVE (IL-001)

* * * * * * * * * * * *

CORRECTION: On page 16 of the December Newsletter, in the bottom paragraph, it states that the DOD Flight Information Publication, U.S. IFR SUPPLEMENT costs $2.45. It was just brought to my attention by KEN (TX-003) that a new price list is out. The IFR SUPPLMENET now costs $5.00. I hope that not too many members have been inconvenienced.

IDEN (CA-RI-001)

DON SHANLY (CA-003) referred to the December 1978 Newsletter, in which G. Dubois (OR-001) requested assistance in determining the source of C.W. on 33.94 MHz. DON writes that in Feb. 1978, the FCC authorized the use of automatic morse code station identification as an alternative to voice identification in the Public Safety, Industrial, Land Transportation, and General Mobile radio services. Formerly, morse code ID was permitted in the Amateur Radio service and by special temporary authorization in the Land Mobile service.

DON requested information from Electra Co's Betty Bearcat service, but was sent frequency data which did not relate to his geographical area. He asks if any RCMA members have received from Ms. Bearcate any "up-to-the minute" information on the hottest frequencies.

According to DON, skip activity was high in CT during Sept/Oct--his record being Pensacola, FL on a frequency of 46.52 MHz. Also, he wants to know if any RCMA members have information on recently-installed 800 MHz Land Mobile radios for businesses in the CT area. Can anyone help out on this one?

* * * * * * * * * * *

ROBBIE (CAN-009) writes that the Calgary Police Department uses 8 HUF channels around 462 MHz and they are all repeaters. The Fire Dept. uses 4 channels around 154 MHz and they are simplex. The majority of the rest of the services use VHF-Hi, with a few on UHF, and nothing heard on VHF-Lo. Using the "Table of Frequency Allocations" (available through the DOC), ROBBIE has found that the Canadian Government is "permitted" on 30-50, 225-267, and 335-400 MHz. Municipal governments and agencies are authorized to use 27.255 and 27.660.

ROBBIE submitted a 10-code for the Calgary PD, which will be available to members as a future FACT SHEET (Send SASE).

* * * * * * * * * * *

A letter has been received from MICHAEL MAY (CA-LA-151), a new member who really enjoys the hobby of monitoring since he is a shut-in disabled by heart disease. He started out monitoring with a Monitor-scan Tunable, and states that he is knowledgable in the area of consumer problems and is willing to write future comments on consumer rights, warranties, etc. MICHAEL referred to Motorola's propaganda, stating he felt our members are genuinly interested in non-criminal use. He feels RCMA's large membership should carry some "clout" with manufacturers.

* * * * * * * * * * *

New member ED (CA-LA-143) wrote in response to a previous request for CALTRANS frequencies. ED works for CALTRANS and has submitted frequency listings which appear in the frequency pages of this Newsletter. He emphasized that none of the frequencies are used specifically for public information, but are for internal affairs only.

ED also submitted a copy of a recent POPULAR SCIENCE article regarding GMRS radio (UHF Citizens Band) -- he noted that the frequency 467.550 is probably an LA area repeater (constant tone).

* * * * * * * * * * *

New member Charlie (CA-RI-016) wrote in response to comments from GEORGE (CA-SB-008) in the October Newsletter--as it relates to monitoring CDF air tankers. Charlie lives on the west slope of the San Jacinto mountains, east of Ryan Field, which is the home base for the CDF Air Tankers in Southern California, and states that his location is a monitors' dream. He can pick up the CDF from three different forest and mountain ranges, plus the USFS, S.O.'s in three counties, the CHP from San Bernardino to San Diego County, plus all local PD, FD, and hospital/ambulance traffic. Charlie indicates that good CDF Air Tanker channels are 151.310/yellow and 151.280/blue.

BOB MC GOVERN (CA-YO-001), who currently resides in Florida, writes that he has been receiving extensive "skip". He indicates that Sacramento CHP is one of the stronger stations received, bue he has received frequencies as high as 46.46 (San Francisco FD) -- not bad ! !

* * * * * * * * * *

DAN (PA-001) writes in about the Motorola Advertisement and suggests a joint effort by RCMA and SCAN to contact Motorola "with both feet kicking". He states he is a member of SCAN, but feels that RCMA is the voice of the independent scanner operator. DAN is the happy owner ot a BC 101 and considers Bearcat to be on of the better manufacturers.

P.S. -- RON (CA-LA-060) - please respond to Dan's postcard regarding classified ad.

* * * * * * * * * *

Word has been received from ED (IL-004) that as of 11-25-78, several western suburbs of Chicago were scheduled to switch to UHF, a move which will leave several VHF PD channels vacant. ED questions the real reason for these changes, indicating he feels Motorola salesmen simply want to sell elaborate repeater radio systems with networks of satellite receivers and voter selectors which are needed on UHF.

He feels the only fault with VHF simplex is that the FCC has refused to take the bull by the horns and classify frequencies, as it has with AM and FM broadcasting. Base stations are allowed on mobil-designated channels and 15-watt base stations share channels with installations using over 1000-watt ERP with tall towers. ED also points out that 6-square mile towns don't need a 60-mile radius coverage.

CLUB NEWS

Club Treasurer KARL (CA-OR-022) advises that membership expiration dates now appear on the Newsletter Address Labels.

* * * * * * * * *

A Christmas greeting to the RCMA membership was received from our one and only member from Mexico-- JAVIER (MX-001). Since "no habla espanol", we're not sure of the exact message on the card, but we do appreicate the gesture.

* * * * * * * * *

RCMA made the Sunday Newspaper. . .The December 3, 1978, issue of the Riverside Press-Enterprise carried a feature article on The Scanner Boom. It explained the hobby of monitoring and outlined the various types of scanner equipment. The article referred to the RCMA and its nationwide membership, emphasizing the club's goal that members understand the legal and ethical use of monitor receivers.

* * * * * * * * *

UPCOMING RCMA ELECTIONS -- See the "Message from the President", on Page 1 of this Newsletter, for an explanation of the Club's up-coming election process.

* * * * * * * * *

NOTE: To be gramatically correct -- when returning from a Code 7, it should be "10-eaten" rather than "10-ate".

INFORMATION EXCHANGE

Ever look under the hood of a Bearcat 210 and wondered what's there?? Send a SASE to RCMA and you will receive a free BC 210 schematic (8" x 10" xerox copy). BRYAN (CA-OR-097)

RCMA members in the US desiring to know the flight itineraries and types of planes of specific airline flights that they hear can write to MARK HOLMES (IL-008), 1601 W. Maplewood, Marion, Illinois 62959 (SASE)

MI-00$ requests that ME-003 contact him.

WANTED: Plans and specs on radio desks and also pictures of radio room set-ups. GUY KROGER (IA-002) 211 S. Fawcett, Sioux City, Iowa 51103 (712) 258-5902

I recently added a Whamo-10 to my listening post -- a good buy on a close-out. Does any other Whamo owner have any tricks or procedures relating to the Whamo?? Thanks. FRED (CA-KE-002).

Would like to have listing of LACO Sheriff's clearance codes. Also, info on LACO F.D. usages. Will UHF be eventually used for dispatch? Police Call doesn't show Batt. usage. FRED (CA-LA-007).

Would like listing of LA City Fire stations--primarily inthe San Fernando Valley area (disp. on 33.94). A list has been started, but need additional data. RON MURRAY (CA-LA-060).

(1) I would like to exchange tapes of police, fire, paramedic, etc. communications. (2) Can anyone tell me what I would need to build a clock (military time)? (3) Does anyone know when the new Regency Aircraft Scanner is coming out and how much it will cost? (4) Can anyone tell me what the frequencies are of the major airlines? GUY KROGER (IA-002).

I am interested in corresponding with other serious listeners on the following subjects: Aural brevity codes, scramblers, receiver modifications, antennas, law enforcement, and emergency medical. Also, I have some Boston and Cape Cod frequency and code information. DON SHANLEY (CT-003), P.O. Box 147, Farmington, CONN 06032.

WANTED: Schematic or manual for Robyn Model 1000 (hi band) 4 channel Portascan. Want to borrow to photocopy, but willing to purchase. DON (CA-OR-014), 714-524-5730.

* * * * * * * * * * * *

WANT ADS

WANTED:

SCHEMATIC, kit, or ?? to build compact, 1-channel, crystal-controlled receiver for VHF-Lo. Also same for UHF. Contact JEFF (CA-OR-012). 1626 Warwick Lane, Newport Beach, CA 92660 (714) 642-4306.

SELL ME a copy of a Service Manual for a Hy Gain 3-band Crystal Proscan. Or, please refer a sure-thing-source of where one can be purchased. Your reply will be quickly acknowledged. JOHN RUCKERT, (CA-LA-055), 953 So. Beacon Ave., Los Angeles, CA 90015.

MISC. FREQUENCIES

SVC.	CITY	USE	CHAN.	CALL.	XMTR.	FREQ.
ST. LOUIS, MO. AREA						
FD	ST. LOUIS	BASE-DISPATCH		KAG632	B	154.130
"	"	MOBILE-TO-MOBILE		"	M	154.130
"	"	MOBILE TO BASE		"	M	154.010
"	"	PORTABLES		"	M	153.830
"	"	FIRE GROUND		"	M	153.950
FD	"	MUTUAL AID		KAG632	B/M	154.280
AMB.	"	DISPATCH		KUP348	B/M	155.955
PD	"	DIST. 9 (CENTRAL)	9	KRF578	R	460.025
"	"	INFO. DIST 1,2,3	A	"	R	460.050
"	"	BUREAU OF INV.	B of I	"	R	460.075
"	"	INFO. DIST. 4,5,9	B	"	R	460.100
"	"	TACT. OPS.	SODD**	"	R	460.125
"	"	INFO, DIST. 6,7,8	C	"	R	460.150
"	"	COMMAND POST *	COMMAND	"	R	460.175
"	"	DIST. 3 (SOUTHEAST)	3	"	R	460.200
"	"	DIST. 6/8 (NORTHWEST)	6/8	"	R	460.225
"	"	DIST. 1/2 (S., SW)	1/2	"	R	460.250
"	"	DIST 4/5 (E., NE)	4/5	"	R	460.275
"	"	DIST. 7 WEST)	7	KRF578	R	460.300
		POINT TO POINT		KAB246	B	155.370

* Command Post Frequency has phone patch capability.

** SODD - Special Operations Deployment Division

Channels A, B, C, B of I, SODD, Command - Citywide Coverage

District Channels - District coverage only.

MIKE (MO-002)

SOUTHERN CALIFORNIA

HAM	MT. OTAY, SAN DIEGO	SAN DIEGO AMATEUR RADIO COUNCIL	WR6ACF	BM	146.04 In
				R	146.64 Out
"	ANAHEIM	ANAHEIM RADIO CLUB	WR6ACD	BM	146.19 In
				R	146.79 Out
"	CRESTLINE	EASTERN DESERT COVERAGE	WR6ACJ	BM	146.25 In
				R	146.85 Out
"	RUNNING SPRINGS	LONG HAUL HAM-TV CALLING FREQ.	WR6AED	BM	146.31 In
				R	146.91 Out
"	CATALINA ISLAND	COASTLINE & W.DESERT COVERAGE	WR6AAA	BM	147.69 In
				R	147.09 Out
"	MT.DISAPPOINT-MENT	RADIO AMATEUR CIVIL EMERG. SERVICE	WR6ABQ	BM	147.87 In
				R	147.27 Out

JOHN (CA-LA-055)

RIVERSIDE CO. CALIF. AREA

SO	RIVERSIDE	DISP.RIVERSIDE, ELSINORE	1	KMA880	BM	158.85
"	BLYTHE	DISP.	1	KMA879	BM	158.85
"	RIVERSIDE CO.	REPEATS,INDIO 158.76(C5)	2	VARIOUS	R	159.09
"	(BLACK ROCK)	REPEATS,BLYTHE 158.85(C1)	2	KMH970	R	159.09
"	RIVERSIDE CO.	CAR/CAR LOCAL	3	KA5021	M	158.97
"	BANNING	DISP.BANNING, BEAUMONT	4	KMA878	BM	158.82
"	INDIO	DISP	5	(KMA583 (KGJ782	BM	158.760
"	RIVERSIDE CO.	CAR/CAR COUNTY WIDE	6		M*	158.925(N)
SO	RIVERSIDE CO.	CAR/CAR COUNTY WIDE	8		M*	159.450(N)

* FUTURE REPEATER

RICK (CA-RI-006)

SVC.	CITY	USE	CHAN.	CALL.	XMTR.	FREQ.
STATE OF CALIFORNIA - CALTRANS (HIGHWAY MAINTENANCE)						
HWY	LOS ANGELES CO.	MAINT (D7) SO OF CIV.CTR.	WHT			47.020
"	ORANGE CO.	MAINT. (D7)	WHT			47.020
"	LA,ORG,VENT.CO.	CONST. (D7)				47.080
"	LOS ANGELES CO.	MAINT. (D7) NO OF CIV.CTR.	BLU			47.120
"	VENTURA CO.	MAINT. (D7)	BLU			47.120
"	LA,ORG,VENT.CO.	(D7) FWY OPR & SIGNAL LAB				47.240
"			BLK			47.040
"			BRN			47.060
"	SAN DIEGO CO.		YEL			47.100
"	SAN BERNARD. CO					47.160
"	RIVERSIDE CO					47.160
HWY			PUR			47.180
			RED			47.200
		ED (CA-LA-143)				
STATE OF KANSAS						
HP			1		M	44.82
"			1		BM	44.98
"			2		M	45.18
"			2		BM	44.94
"		Speedtraps	3	Airc.	M	45.14
		Turnpike			R	154.6800
HP		Turnpike			R	154.8300
HWY		Turnpike			R	151.0850
SD	(MOST CO.)				M	39.700
"	(MOST CO.)	—			BM	39.580
LAW	STATEWIDE	INTERSYSTEM, SO,HP,PD			B	39.46
PD	UNIV. OF KS				BM	39.36
STATE OF MISSOURI						
LAW	MOST AREAS				BM	155.73
LAW	STATEWIDE	INTERSYSTEM			B	155.370
STATE OF OKLAHOMA						
LAW	(MOST AREAS)				BM	155.490
LAW	STATEWIDE	INTERSYSTEM			B	155.670
		BOB (KS-001)				
SAN LUIS OBISPO, CA. AREA						
SD	SAN LUIS OBISPO CO.		WHT			460.050
"	"		RED			460.050
"	"		BLU			460.150
SD	"		YEL			460.475
PD	SANTA MARIA					460.100
PD	MORRO BAY					460.100
"	PASO ROBLES					.125
"	PISMO BEACH					.175
"	CAL POLY					.250
"	SAN LUIS OBISPO					.375
"	GUADULUPE					.450
FD	MORRO BAY					154.130
"	CAL POLY					154.205
"	SAN L.OBISPO CO.	MUTUAL AID				154.280
"	" " " CITY					154.310
"	ATASCADERO					154.370
"	SANTA MARIA					155.100
"	PASO ROBLES					155.940
"	POSMO BEACH					158.940
"	OCEANO					158.940
AMB	SANTA MARIA					155.220
"	PASO ROBLES	PROFESSIONAL AMB.				155.22
"	ATASCADERO	NO. COUNTY AREA				155.22
"	SAN LUIS OBISPO					463.750
		JACK (CA-SL-001)				

WANT ADS

FOR SALE

BEARCAT 250, excellent condition - $255; CRAIG 4351 VHF H/L Pocket Scanner, excellent condition - $65; RCA 16S200 UHF 450-512 MHz pocket scanner, veractor tuned, excellent condition - $65. BOB MC GOVERN (CA-YO-001), P.O. Box 1394, Sarasota, FL 33579 (813) 365-0053.

BEARCAT CRYSTALS: 146.940, 153.665, 154.785, 155.070, 155.130, 155.385, 155.445, 155.655, 155.715, 158.790 (2), 159.030, 163,925, 166.400, 167.200, 460.075, 460.175, 460.425, 460.475 - $1.50 each. CRYSTALS for scanners with 10.7 MHz IF: 158.790, 158.850, 159.030 - $1.50 each. DAVID BECK (AL-001) 422 Laurie Drive, Birmingham, AL 35214

CRYSTALS, CR-24/u, axial lead, for URR-13, etc: 22.05, 22.2, 22.29, 22.44, 22.5, 24.5, 25.39, 25.116, 25.32 and 30.366 mc. $2.50 each. G. DU BOIS (OR-001), 10048 NE Campaign, Portland, OR 97220.

CRYSTALS, HC18/U type holder, 3rd overtone. Fits Sonar, Lafayette, Fanon, Hy-Gain, etc. radios. Following frequencies:37.38, 44.62, 44.66, 44.78, 44.94, 44.98, 45.58, 45.90, 150.995,151.115, 151.985, 154.04, 154.16, 154.43, 154.445, 154.65, 154.77,154.89, 154.905, 155.13, 155.19, 155.205, 155.37, 155.415, 155,46, 155.535, 155.55, 155,61, 155.73, 155.85, 155.985, 158.82, 159.21, 160.47, 161.04, 161.40, 453.375, 453.40, 453.55 453.65, 453.80, 460.075, 460.100, 460.200, 460.500, 470,3125, 470.6625, 470,8625, 470.8375, 471.0875, 476.3625, 454.100 MHz. Price: $2.50 each postpaid. 5 or more: $2.00 each postpaid. Send postal money order or stamps, please. TONY LOVING (NJ-005), 231 Kinderkamack Rd, Westwood, NJ 07675.

TENNELEC MCP-1 Memoryscan. 16 ch. programmable scanner w/search, L/H/UHF. $175 or any reasonable offer. MIKE (CA-RI-011) 10060 Hillsborough Lane, Riverside, CA 92503. (714) 785-0266

REALISTIC PRO-16A L/H/U and U-T. Very good shape. Must sell $125. or best offer. Also crystals $1.50 each: 39.140, 39.200, 39.220 39,480, 154.130, 154.265, 154.280, 154.295, 154.340, 154.430, 154.860, 154.770, 155.43, 159.180, 470.5125, 470.3875, 470.812, 453.100 and 453.350. BOT NORTHAN (CA-LA-079) 21 Santa Bella Rd., Rolling Hills Estates, CA (213) 541-5430 - after 5:00 p.m.

PACE 216 U/H 16 Channel VHF-H and UHF. Like new. First reasonable offer gets it. JEFF (ACA-OR-012) 714 - 642-4306.

CRYSTALS, Type 1 - $2.00 each. 460.025, 460.075, 460.150, 460.275, 460.425, 460.475, and 460.500 JEFF (CA-OR-012) 714-642-4306.

REGENCY 8 channel VHF Hi-Lo with telescopic antenna. Automatic or manual scan. AC or DC operation. Will sell for $50 or will discuss a trade for an aircraft scanner. Also, the following crystals for sale that will operate in a Regency - $2.00 each: 463.075, 154.265, 468.175, 154.280, 39.860, 155.625, 42.280 , 42.080, 468.075, 463.175, 39.080, 153.950, 155.340, 39.480, 453.100, 39.600. RON MURRAY (CA-LA-060) 18935 Sherman Way No. 13, Reseda, CA 91335 213-343-6645 After 6 p.m.

REGENCY ACT-R20/6 20 Ch-6 band. Excellent condition w/20 crystals. AC-DC power cords and A/S MON-9 antenna. $190. Call (213) 676-1173 (Business) or (213) 675-0202 (Home). RICHARD WALKER (CA-LA-130) - or write to 4081 W. 130th St. No. F, Hawthorne, CA 90250

"TWELVE CODE"

12-1	Ask the complianant. Our periscope has been repossessed.
12-2	The desk Sgt. is down at the sandbox. When he gets back, I'll ask him.
12-3	All of the units on this channel can read you and you're making an ass of yourself!
12-4	I hear you; I'm ignoring you.
12-5	You're beautiful when you're angry.
12-6	Aw, your sister dispatches fire trucks.
12-7	I sure hope to hell you don't have your first 6 months in yet.
12-7-C	Coffee Break
12-7-E	Stick it in your ear
12-7-P	Potty
12-7-R	I'm 10-19 to punch you in the mouth.
12-7-Z	Wake me up when it's time to go OD.
12-8	Send "Lóver Boy" for a fill. I've got a swinger.
12-9	Say again, and this time without the mouthful of shellac.
12-10	Hey, Ersatz-for-brains, how did you ever get on the team?
12-11	Is there a Swahili-speaking officer on the air?
12-12	I'm 10-8, ~~but~~ don't give me any assignments...I go OD in an hour.
12-13	I didn't ask you 10-20. I gave you an assignment. GO !
12-14	Knock off so damn many 10-29's or I'll give you an 11-82 five miles off your beat.
12-15	If your prisoner knows anything about dispatching, bring him to Radio for my relief.
12-16	Is that your mike clicking or is your upper plate loose?
12-17	Slow down, dammit ! Most of my shorthand lessons got lost in the mail.
12-18	Let's go home and start all overagain tomorrow, check?
12-19	Sorry about that.
12-20	Would you believe _____?
12-21	Great Scott! Do you get paid by the word?
12-22	To make it look good, stamp me 10-8 in 20 minutes. Actually, I'll be 10-7 a few hours on Gov't. business.
12-23	10-21 Radio; Charlie's setting up a poker game for tonight.
12-24	I refueseto CRACK! Go ahead w/seven 10-29's, but you'd better have at least one stolen in the bunch.
12-25	This assignment has been pending a helluva long time. Give the complainant the "I-was-held-captive-by-a-sex-mad-Avon-Lady" bit.
12-26	Any dog unit on the air that can help a fire rig find a fire plug?
12-27	Report writing later, man! You've got a stack of Pinkies you wouldn't believe.
12-28	Same to you, Fella!
12-29	I'll respond as soon as I finish file-checking the rest of the cars in the parking lot.
12-30	Nothing personal, Fella; I don't have any other unit that can respond.
12-31	OK, so I goofed; none of us are human.
12-32	You're unreadable; are you sitting on your microphone?

Author anonymous - Submitted by CHARLES CA-SC-002

TECHNICAL NEWS

As I drag out my trusty old soapbox, sharpen up all my pencils, and prepare to launch my first technical editorial for 1979, I must first thank all of you who have responded to my frantic requests for correspondence. Some of you have written in with congratulations, others with suggestions, and still others with information to contribute, and to me personally, this is very gratifying because, ladies and gentlemen, this is what a newsletter is all about. It pleases me particularly to see the RCMA's stong, steady growth. Every month the membership grows a little bit more, and that's good for all of us because as the RCMA broadens its scope and extends its horizons, the closer it comes to fulfilling its purpose.

Every now and then, while rummaging around in some of my old junk, I run across some notes I made during some of the very first RCMA meetings, and I can't help chuckling to myself as I read them. Back then, in the summer of 1975, I never dreamed that one day the RCMA would achieve national, and even international status, that we would embody a membership large enough and diverse enough to truly make our presence felt. The credit for this miracle belongs to you--for without your faithful and continuing support, none of this could have happened, and for that I want to wish you all a happy and prosperous 1979 and offer my heartfelt thanks.

CHUCK (CA-OR-001)

REPEATERS--HOW THEY WORK

Now that I've dispensed with January's ration of editorializing, I want to elaborate a bit on a subject suggested in a letter from ENRIQUE (FL-006). He wrote and asked if I could briefly discuss what a repeater is and how a repeater system operates. I really welcome letters of this type because they remind me that sometimes in the whirlwind of technical discussions, we may tend to overlook some of the seemingly basic questions that members have. Since my responsibility to the Technical section of the Newsletter is really a responsibility to the RCMA members at large, I want to remind everyone not to hesitate in sending in questions, no matter how simple you may think they are.

A repeater, whether it be a simple machine or a complex system, is simply a way of extending the effective range of a station operating in the public service bands. This becomes an important consideration, particularly with mobile stations, since the effective range of the radio is heavily dependent upon the antenna system, and more specifically, the height of the antenna system.

Let's use an example to clarify matters a bit. Suppose we have two vehicles approximately ten miles apart on opposite sides of a city, using UHF radios in the 450-470 MHz region. Since the height of each antenna is probably no more than five feet, and due to the probable presence of a large number of tall, concrete structures in the path, the chances of vehicle A communicating directly with vehicle B are, to say the least, quite remote. Add to this the additional factors of vehicle movement and a low transmitter power (<25W) and we have a real problem.

This is where the repeater comes in. It its simplest form, a repeater is just a receiver operating on one frequency which controls a transmitter operating on a second frequency. This is usually done for the purpose of relaying or "repeating" the signals received by the receiver. Going back to our example, a repeater could be installed somewhere in the central area of the city and its antenna mounted on a tall skyscraper or other building. The receiver in the repeater could be tuned to a frequency in the 465 MHz area, and the transmitter to another frequency in the neighborhood of 460 MHz, and the two interconnected with a "carrier operated relay", also known as a COR, so that whenever the receiver picks up a signal, it will key the transmitter and "repeat" that signal.

In the mobile units, whenever one operator keys his microphone, he will transmit on 465 MHz. This will be received by the repeater, which is listening on 465 MHz, and then "repeated" by the transmitter on 460 MHz, which will then be picked up by the second mobile unit whose receiver is tuned to 460 MHz. In a repeater system, you always talk on one frequency and listen on another. The repeater's "receive" frequency is known as the repeater "input" and the "transmit" is called the repeater "output". The difference between the input and output frequencies is referred to as the "offset" and may or may not be standardized. On UHF, this offset is usually 5 MHz, with the repeater input being the higher of the two frequencies, but on VHF, the split may be almost any amount, ranging from 500 KHz to many megahertz. Repeaters use a common antenna for transmitting and receiving, and since this is done simultaneously, a device known as a "duplexer" is connected between the receiver, transmitter, and antenna. The purpose of the duplexer is to isolate the receiver from the transmitter's output. Without it, one could not connect both units to a common antenna without utterly demolishing the receiver front end. Since a good duplexer provides 80-100 db minimum isolation between transmit and receive, the receiver will be able to properly operate with the transmitter keyed on the same antenna!

The advantage to the repeater system is obvious. The repeater is located in a geographically superior spot for both reception and transmission, whether it be on a tall building in a city or on top of a mountain. Due to its location, it can "hear" all of the mobile units in its coverage area, and all of the mobile units can also "hear" the repeater. It is no longer necessary for the mobile units to be directly accessible to one another, since the repeater will relay all transmissions. As long as both units are within range of the repeater, reliable communications can be maintained, and since the mobile units listen only to the repeater, signal strength will not vary from unit to unit. As long as you can "make" the repeater, you will be heard by all units who are able to copy the repeater.

Most repeater systems are what is known as "half duplex". This means that although transmission and reception occur on different frequencies from the mobile units, it does not happen at the same time; an operator talks and then listens. In a "full duplex" system, mobile units can transmit and receive simultaneously, as if on a telephone, but this requires that each mobile unit also be equipped with a duplexer--an expensive proposition. In addition,most systems provide for going "simplex", in which case the mobile operator can change his transmit frequency over to the repeater output. In this way, he can choose to talk "around" the repeater to any other units within his immediate area; provided, of course, that someone else doesn't key up the repeater and cover him up. The base operator or dispatcher may either key the repeater transmitter directly (in which case the station is known as a "base") or via the input in the same manner as a mobile unit (in which case it is known as the "control" station).

Some repeaters are "open"; in other words they will respond to any signal appearing on the input frequency. Others are "closed" and may require tone bursts or sub-audible tones to accompany the carrier before the transmitter will be keyed. But no matter how complex the system, repeaters operate in basically the same fashion and serve the same purpose--that of extending the normal communication range of stations operating in the VHF or UHF portion of the spectrum.

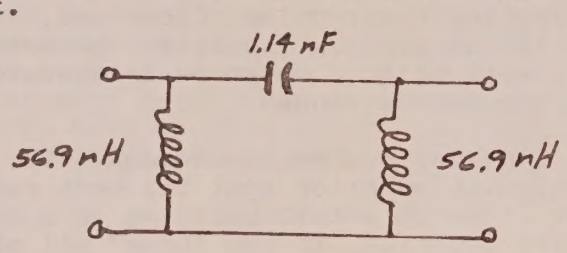
I hope this not-so-little discussion has been informative to those of you who are interested in this type of communications.

FUTURE ARTICLE ON "INCREASING SCANNER SELECTIVITY"

TOM (FL-005) has expressed an interest in increasing the selectivity of his scanner without adversely affecting its sensitivity. There are several ways of achieving this, but I will beg off on this particular subject for the time being, as I am working in collaboration with another member to generate a comprehensive article on this subject.

JEFF (TN-001) writes that he is experiencing considerable problems with aircraft and commercial FM broadcast signals causing interference and heavy intermodulation with his reception of VHF-high band signals, and wants to know if there is some sort of filter which can help to eliminate this problem.

Well, since commercial FM from 88-108 MHz and aircraft from 108-136 MHz are both considerably removed from the frequencies of interest, a simple high-pass filter with a cut-off frequency in the neighborhood of 140 MHz should reduce the interference without causing much in-band degradation. Since to my knowledge no such filters are manufacturered specifically for this frequency range, it may be more expeditious to construct it yourself. The accompanying diagram gives suggested component values which I have calculated using the 140 MHz cut-off frequency as an example. I realize that winding coils may not be an every-day occupation for most of you, and even if it is, adjusing the filter is best done with a spectrum analyzer. I apologize for this, but some things I am just unable to shortcut.



Simple high-pass filter, constant-k, π section, with cut-off frequency of 140 MHz, for 50 ohms impedances.

REGENCY FEELS RCMA CLOUT

Many thanks to RON (IL-009) for his nice letter and keeping me informed of the progress of big "lemon syndrome". It seems that when RON contacted Regency and read them the text of my response in the November Newsletter, someone decided to help him with his Touch. I feel very gratified to hear that my first effort as a consumer advocate has met with positive results, and I think a little of that thanks should go out to the general membership, without who the RCMA would not have the respect that it does in the professional community.

GOOD RESULTS FROM WINEGARD DA-825B PREAMP

ED (Il-004) wrote in an reports good results using a Winegard DA-825B preamp. This preamp is designed as a VHF/UHF TV preamp, as well as for the FM broadcast band. I would expect results with this preamp to be reasonably good since the overall gain is probably not more than 10-12 db on VHF and about 9 db on UHF, and intermod characteristics should be good because the preamp is used to handle signals that are quite strong. However, inclusion of the FM broadcast band is unnecessary and could create some difficulty where intermod with FM stations is concerned. My only objection to a preamp of this type is the relatively poor noise figure and resulting poor weak signal performance.

ED also claims that since scanners are supposedly optimized for the screw-in internal antennas, which vary in length from model to model and don't seem to resemble the large 50-ohm external counterparts, that the manufacturers claim of a 50-ohm input impedance is false.

On this category I must firmly disagree. First of all, no claim is made or implied by the manufacturer that the tuning of the radio's input section is "optimized" for the built-in collapsible antennas. At best, these antennas are a compromise, and when used, some models (such as the Bearcats), add in some additional inductance to make the antenna appear "electrically" longer than it actually is.

The actual impedance of any antenna, when viewed from the business end of the transmission line where it connects to your receiver, will vary across a wide range depending on the frequency at which you measure that impedance. Antennas designed to present a 50-ohm impedance to a transmission line over the 2-meter HAM band, tor example, cannot be assumed to do so outside of that range from 144-148 MHz, and the assumption that if it performs poorly in the high VHF band that the receiver does not have a 50-ohm impedance is also incorrect. I can personally guarantee you that a 6 db Ringo Ranger cut for 147 MHz will present an impendance at the receiver of about 400 to 500 ohms when used at 155 MHz ! If we attempt to use a screwdriver for a crowbar, we cannot blame the screwdriver for bending, so let's not be so quick to blame the hardware in those cases where we, ourselves, misapply it. Antenna matching done properly is a case of matching antenna impedance to feedline impedance; our use of "matchboxes" and other gimmicks to adapt the antenna feedline to the receiver is simply covering up something we did wrong in the first place.

CHUCK (CA-OR-001)

* * * * * * * * * * * *

LOOKING FOR A HELICAL FILTER??

VHF Engineering Company, 320 Water Street, P.O. Box 1921, Binghamton, NY 13902 (607-723-9574) sells a helical filter for the 2-meter, 220 MHz and 432 MHz ham bands. The 2M filter will tune very easily across the 150-174 MHz monitor band, while the 432 filter will tune from 200-508 MHz.

In talking with the Factory, they indicated they would pre-tune the filter to any desired frequency.

OR, if you can't wait, drop into C & A Electronics, 22010 S. Wilmington Ave., Suite 105, Carson, CA -- just off the 405 Freeway. Phone: 213-834-5868. The helical filter sells for $29.95 -- I feel its worth it.!

BRYAN (CA-OR-097)

DIRECTION FINDING EQUIPMENT

For those of you interested in Direction Finding equipment, the Happy Flyers has just the thing. Their DF Manuals and Circuit Boards are now available for $10 through Lee Osborne, 4440 E. Sycamore Avenue, Orange, CA, 92669 (714-639-0627). Components are available through Ben Bohach, KØGVS, Twin Cities Diversified, 4253 13th Ave. South, Minn, MN 55407, for about $50. Lee is the Squadron Commander for the LA area and is willing to discuss DF (Include S.A.S.E.)

BRYAN (CA-OR-097)

49 MHz 2-way Walkie-Talkies

The new 49 MHz 2-way walkie-talkies are now available. The five channels in this band are 49.83, 49.845, 49.86, 49.875, and 49.89.

According to Popular Electronics Magazine, the unit could be AM or FM, providing they are in a 20 KHz channel. The antenna length is limited to about 1.5 m, and the speaker/mike must be in the case along with the RF components. Power is limited to 100 milliwatts or 10,000 microvolts per meter.

I bought two units from Lafayette Radio -- the HA-240 with metal cases. They checked out with 3.2 milliwatts and and -80 DBM sensitivity. They're capable of a distance of one mile in relatively clear areas. By the way, the band is very quiet.

BRYAN (CA-OR-097)

MONITORING AND THE LAW

In the "Information Exchange" section of the December RCMA NEWSLETTER, BOB (CA-YO-001) asked if any NJ member could comment on the degree of enforcement of New Jersey's stiff monitor law. Several New Jersey members have already responded with their observations. Each has also supplied a copy of the particular law in question, which reads as follows:

EXCERPT FROM CIVIL AND CRIMINAL JUSTICE CODE -- NEW JERSEY

"CHAPTER 127. MOTOR VEHICLES

2A:127-4. Installing short wave radios operative on frequencies assigned for governmental uses; exceptions

Any person who installs or has in any automobile, a short-wave radio receiver operative on frequencies assigned by the Federal Communications Commission for fire, police, municipal or other governmental uses, is guilty of a misdemeanor, unless a permit therefor has been first obtained from the chief of the county police, or from the chief of the police of the municipality, wherein such person resides.

This section does not apply to any fire, police or other governmental official of the State or of any county or municipality thereof.

The term fire official, as used in this act, shall include all active members and officers of any municipal fire department or force or any first aid and emergency or volunteer ambulance or rescue squad whether said department, force or squad be paid, part-paid, or volunteer."

The following are some of the comments received from NJ members:

"A misdemeanor in New Jersey is an indictable offense. This means arrest, bail, grand jury hearing, attorney's fees, seizure of your equipment as an instrument of the crime and/or contraband. Even if your case was dismissed, you must petition the court for the return of the equipment, which involves additional costs. Violation of this statute is by no means a negligible or minor offense.

This statute is not anywhere near new within this state. It was written many years ago and its intent was quite clear--to prevent the reception of any official radio transmission by an unauthorized person in a motor vehicle. With the advent of scanning-type receivers and the popularity of same, I doubt that many owers of this equipment have any idea as to the extent of trouble they can expect should they violate this statute. There is no provision for "ignorance of the law".

The key words in this statute are: "Installs or has" and "Receiver operative on frequencies" -- this is where interpretation enters the picture. In effect, the wording would cover any hand-held portable, as well as any converter unit. The unit does not even have to be operative at the time.

While I cannot answer BOB'S (CA-YO-001) specific question as to the degree of enforcement in the State of New Jersey, I can state that it is becoming more prominent because of the abuse of the mobile equipment. Permits in the State of New Jersey are about as difficult to obtain as one to carry a firearm. Unless you have good connections or do not need one because you fit the "exception" category, you might as well forget it and enjoy your scanner at home.

ED (NJ-003)

CONTINUATION OF MEMBERS' COMMENTS RE: NJ MONITORING LAW:

As a county law enforcement officer, I personally witnessed the trial and conviction in a county court of a defendant on a charge that he violated N.J.S.A. 2A:127-4. I do not recall the sentence received by the defendant; however, other charges and plea-bargaining were involved.

A municipal police chief once told me of an instance where a motorist had his police scanner impounded and was arrested.

Prior to my employment in law enforcement, I obtained a permit (VERY, VERY, VERY DIFFICULT TO OBTAIN--you would suspect I was applying for a permit to conduct my own nuclear testing). I was involved in volunteer civic activities concerned with traffic safety. During that time, I was stopped "routinely" and when I presented the police officer with a copy of my valid permit, he acknowledged it and said I was "lucky" because if I didn't have it, I would have gone to jail.

I play it safe --- I am a law enforcement officer and I do have a permit as well.

RICHARD (NJ-006)

Down here in the NJ Pinebarrens, you must have a permit from the city or county chief of police. You must give a very convincing reason for obtaining said permit and if the police turn you down, there is no hope at all of ever getting one. If you do obtain one of these "Solid Gold Permits" (I kid you not--these permits are worth their weight in 24-carat gold and more), then you must have it on your person at all times even though you don't have your scanner on. If you do break the rules and regulations, your permit is revoked and you must remove your receiver from your automobile forthwith. It is a misdemeanor to have a scanner in your auto without a permit and the State heavily enforces this law.

JOHN (NJ-010)

The NJ law is strictly enforced; however, the only time you're going to be stopped and checked is if you're pulled over for a traffic violation.

TONY (NJ-005)

GLENN REILLY (NJ-008) referred to an article published in the May issue of the Newsletter regarding the NJ law, pointing out that changes in the law (noted in the last paragraph of 2A:127-4) had already occured before that article. He indicates that the changed legislation is merely a new exemption added into the old law. GLENN feels that the law change should be of interest to those members who are volunteers in a fire department or first aid squad. Previously, use of a scanner (or even a single-channel receiver) in a motor vehicle by a volunteer was restricted. Now they may use a receiver in a motor vehicle to monitor any frequency they desire. GLENN noted that laws such as those found in NJ have been found unconstitutional in both Michigan and California some years back.

* * * * * * * * * * *

COMPILATION OF MONITORING LAWS?????

Some time ago, GLENN REILLY (NJ-008), of Reilly Radio Communications, Great Meadows, NJ, volunteered to donate his time to compile a handbook (looseleaf type) of laws relating to monitoring, which could then be distributed to members at cost. Sounds like a good idea, so keep on sending in monitoring laws as they relate to your areas, and perhaps we'll get something put together if GLENN is still interested.

As of 1/1/79, RCMA has 534 members in 42 states and 4 foreign countries.

ALABAMA 3
ARIZONA 5
ARKANSAS 1
CALIFORNIA ..345
COLORADO 4
CONNECTICUT ...3
DELAWARE 2
FLORIDA 9
GEORGIA 1
IDAHO 2
ILLINOIS 15
INDIANA 5
IOWA 4
KANSAS 2
KENTUCKY 1
LOUISIANA 1
MAINE 3
MARYLAND 7
MASSACHUSETTS ...7
MICHIGAN 7
MINNESOTA 2
MISSISSIPPI 1
MISSOURI 3
MONTANA 1
NEBRASKA 1
NEVADA 2
NEW HAMPSHIRE ...2
NEW JERSEY 11
NEW YORK 20
NORTH CAROLINA ..4
OHIO 5
OKLAHOMA 1
OREGON 5
PENNSYLVANIA 10
RHODE ISLAND 1
SOUTH CAROLINA 2
TENNESSEE 1
TEXAS 5
VIRGINIA 6
WASHINGTON 1
WEST VIRGINIA 1
WISCONSIN 4
ARUBA, NETH ANTILLES.1
BERMUDA 1
CANADA 14
MEXICO 1

NEW MEMBERS

CA CC 003 Jim DeMotte, 1217 Marin Ave, San Pablo, CA 94806
CA FR 001 Cindy Guerrini, 3270 N Melbrook, Fresno, CA 93726
CA LA 030 Ted Palmer, 1415 S Marengo Ave, Pasadena, CA 91106
CA LA 153 Eric Sanders, 5579 Langport #8, Long Beach, CA 90805
CA LA 154 Richard Penunuri, 4207 Warner Blvd, Burbank, CA 91505
CA OR 063 Ronald, Fullerton, CA 92635
CA OR 106 John, Cypress, CA 90630
CA RI 018 Clint Arnett, 2837 Sulky Court, Riverside, CA 92504
CA SB 009 Ken, Ontario, CA 91761
CA SR 004 Charles Eldred, 819 W Anapamu Street, Santa Barbara, CA 93101
DE 002 Francis Fahey, 540 Nylon Blvd, Seaford, DE 19973
IL 015 Victor Somner, 251 S Park Road, Herscher, IL 60941
MD 007 Donald Blevins, 1715 Earhart Road, Baltimore, MD 21221
MI 008 Ken Ascher, PO Box 1002, Ann Arbor, MI 48106
NY 004 Robert, Brooklyn, NY 11230
OH 002 Larry Miller, 2885 Quarry Road, Amherst, OH 44001
WA 001 Rick Miner, 1111 Montana Lane, Vancouver, WA 98661

ADDRESS CHANGES

CA LA 136 Jeff Stine, 6306 Callicott Ave, Woodland Hills, CA 91367
CA SD 006 Bruce Semelsberger, 6607 Broadway, San Diego, CA 92114
CA SD 016 Laine Herman, 2756 Torrey Pines Road, La Jolla, CA 92037

DROPPED FROM MEMBERSHIP

CA LA 071 Hal DeJong
CA LA 078 Joseph Francisco
CA OR 042 Stephen Roberts
CA OR 073 Richard Straight
CA SB 009 Johnny Smith
CA SF 001 Richard Seglas
MI 006 Richard Wolfe
NC 003 Jimmie Babson

PUBLICATIONS

BEHIND THE DIAL: Technical and frequency data--info on assignments, equipment, etc. 73 Magazine, Peterborough, NH 03458.

BEARCAT OPERATING FREQUENCIES: Local frequency guides in Zip Code groupings. FREE from the Electra Company. Write or call Betty Bearcat for free phone frequency info and lists.

CRB COMM DIRECTORIES: Local frequency guies and regional specialty listings. CRB Research, Inc. POB 56, Commack, NY 11725. $3.00 per copy for most lists, $4.00 & $5.00 for some; send SASE for catalog.

POLICE CALL: Radio Directories--regional volumes for public safety, etc. US Radio Data, Dept. W. Lebanon, NJ 08833. $4.95 per copy -- annual (9 vols. for 48 states; add $1.00 for mail order).

POLICE CALL: Southern California Detail Edition--local system/channel details. California Radio Communicationc So. POB 35102, Los Angeles, CA 90035. $5.50 per copy -- annual.

RADIO WAVEGUIDE: San Diego Edition--local system/channel details. Scanner Master Co., 4265 35th St., San Diego, CA 92104. $6.25 per copy--annual.

SCANNER MATE: Radio Directories--regional volumes for PS, trains, taxis, etc. Scanner Mate Directores, Inc., 172 High St., Hartford, CT 06103. $4.95 per copy--annual (7 vols. for 48 states; add $1.00 for mail order).

COMMUNICATIONS MONITORING AND COMMUNICATIONS PROJECTS, by Bob Grove to be released soon from Hayden Books.

A GUIDE TO VOICE SCRAMBLERS, Stock # 003-003-01735-5, Supt. of Documents, Washington, DC 20402. Price: $1.05.

"SIGNAL 10-11: Manual for Monitoring the Calif. Hwy. Patrol--system/channel details.

RCMA
POB 4563
ANAHEIM, CA 92803
FORWARDING AND RETURN
POSTAGE IS GUARANTEED

BULK RATE
U. S. POSTAGE
8.4¢ PAID
ANAHEIM, CA 92803
PERMIT NO. 397

NJ 007 12/79
LINZMAYER, WEBB
16 TROWBRIDGE RD
MORRIS PLAINS, NJ 07950

RUSH --- ITEMS OF NEWS VALUE